

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 June 2004 (24.06.2004)

PCT

(10) International Publication Number
WO 2004/053531 A2

- (51) International Patent Classification⁷: **G02B**
- (21) International Application Number:
PCT/IL2003/001042
- (22) International Filing Date: 9 December 2003 (09.12.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/431,741 9 December 2002 (09.12.2002) US
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- (81) Designated States (*national*): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/053531 A2

(54) Title: FLEXIBLE OPTICAL DEVICE

(57) Abstract: A flexible and optionally highly elastic waveguide capable of propagating and emitting light is disclosed. The flexible waveguide comprises a flexible material having a surface and an end, wherein a first portion of the light is emitted through at least a portion of the surface of the flexible waveguide, and a second portion of the light is emitted through the end. The flexible waveguide can be used, for example as an area illuminator for many applications. Additionally disclosed is a clothing device for providing illumination. The clothing device comprises clothing (or even optionally a sheet) and a light source for providing light. In one embodiment the clothing device comprises the flexible waveguide.